

**REMARKS**

Claims 1-55 are pending in the application.

Claims 1-55 stand rejected.

Claims 34-40 have been amended.

*Rejection of Claims under 35 U.S.C. § 101*

Claim 34 stands rejected under 35 U.S.C. § 101 as purportedly being unpatentable because the claim is directed to non-statutory subject matter. Applicants respectfully traverse this rejection in view of present amendments made to Claims 34-40. Applicants respectfully submit that the Examiner's concerns are addressed thereby. Applicants therefore respectfully request the Examiner's reconsideration and withdrawal of the rejection and an indication of allowability of same.

*Rejection of Claims under 35 U.S.C. § 103*

Claims 1, 2, 6, 7, 16, 19, 20, 24, 25, 34, 35, 37, 39, 40, 41, 42, 46, 47, and 53 stand rejected under 35 U.S.C. § 103(a) as purportedly being unpatentable over Sanchez, U.S. Patent Publication No. 2003/0223402 ("Sanchez") in view of Choe, U.S. Publication No. 2002/0118682 ("Choe"). Applicants respectfully traverse this rejection.

The Office Action asserts that the combination of Sanchez and Choe purportedly teaches the claimed act of accessing a first lookup table based on a first portion of a packet header, where the first portion comprises at least part of a multicast destination address, and the first lookup table identifies a portion of a second lookup table. *See* Office Action, p. 4. However, the purported combination fails to show, teach, or suggest a single lookup table being accessed based on a first portion of a packet header, where the first portion comprises at least part of a multicast destination address and the lookup table identifies a portion of a second lookup table. Further, as discussed below, the combination of cited references fails to show, teach, or suggest accessing the portion of the second lookup table based on a second portion of the packet header, where both accessing acts of Claim 1 are performed by a network device. Accordingly, the cited sections of Sanchez and Choe, alone or in permissible combination, fail to teach the claims.

The cited sections of Sanchez disclose Interface Identifier Retrieval Logic examining a packet's header to retrieve two expected incoming interface identifiers according to the header information: a source-specific identifier from Unicast Routing Table and a flow-specific identifier from Multicast FIT (Forwarding Information Table). *See* Sanchez ¶ [0032]. Although the Office Action cites to the retrieval of both identifiers to purportedly teach the claimed act of accessing a first lookup table, the identifier retrieved from Unicast Routing Table is looked up using a unicast destination IP address. *See* Sanchez ¶ [0026]. This is not surprising considering that the table is a Unicast Routing Table. In contrast, the claimed act of accessing a first lookup table is based on a first portion of a packet header, where the first portion comprises at least part of a multicast destination address. *See, e.g.*, Claim 1. Since a unicast destination IP address is not equivalent to a multicast destination address, Sanchez' act of retrieving an identifier from Unicast Routing Table using a unicast destination IP address fails to show, teach, or suggest the claimed act of accessing a first lookup table based on a first portion of a packet header, where the first portion comprises at least part of a multicast destination address.

Since the retrieval of an identifier from Unicast Routing Table fails to teach the claimed act of accessing a first lookup table, the Office Action must be relying on the retrieval of an identifier from Multicast Forwarding Information Table to teach this claimed feature. But the Office Action then cites to Choe's skip list to purportedly teach the claimed first lookup table identifying a portion of a second lookup table. *See* Office Action, p. 5. Choe's skip list is disclosed to be a routing table. *See* Choe ¶ [0054]. Since the cited sections of Sanchez and Choe distinguish a forwarding table from a routing table without disclosure of combining the two types of tables to form a single first lookup table as purported by the Office Action, the cited sections of Sanchez and Choe fail to show, teach, or suggest Choe's routing table skip list being combined in any manner with Sanchez' Multicast Forwarding Information Table. *See, e.g.*, Sanchez ¶ [0032], Choe ¶¶ [0061], [0062]. Accordingly, the cited sections of Sanchez and Choe, alone and in permissible combination, fail to teach the single first lookup table as claimed.

The cited sections also fail to teach the claimed act of accessing the portion of the second lookup table based on a second portion of the packet header. As recognized by the Office Action, Sanchez fails to disclose this claim feature. *See* Office Action, p. 4. Choe's prefix of an incoming packet is used to search Choe's skip list, purportedly accessing a hash table associated with the prefix during the search. *See* Choe ¶ [0062], [0068]. Thus, Choe's hash table

(purported second lookup table) is accessed in accordance with the search, and not based on a second portion of the packet header. Accordingly, Choe's accessing a hash table fails to show, teach, or suggest the claimed act of accessing the portion of the second lookup table based on a second portion of the packet header.

Further, the cited sections of Choe fail to disclose both claimed accessing acts. As discussed above, since Sanchez' Multicast Forwarding Information Table cannot be permissibly combined with Choe's skip list routing table, Sanchez' act of accessing the Multicast Forwarding Information Table using Sanchez' multicast address fails to show, teach, or suggest the claimed act of accessing a first lookup table based on a first portion of a packet header, where the first lookup table identifies a portion of a second lookup table. The cited sections of Choe disclose using the same prefix to access both Choe's skip list and associated hash tables (the purported first and second lookup tables as asserted by the Office Action). *Id.* Thus, the cited sections of Choe fail to teach both claimed acts of accessing a first lookup table based on a first portion of a packet header and accessing the portion of the second lookup table based on a second portion of the packet header.

Finally, the cited sections of Sanchez and Choe fail to disclose the claimed acts of accessing being performed by a network device. As recognized by the Office Action, Sanchez fails to disclose this feature. *See* Office Action, p. 4. Choe's nodes of the skip list are not disclosed to be computer nodes, but are instead nodes of a linked list. *See* Choe ¶ [0055]. Choe's header node is the initial node of the linked list, where all operations on the skip list must be started from the header node. *See* Choe ¶ [0056]. Thus, Choe's header node fails to show, teach, or suggest the claimed acts of accessing being performed by a network device. Accordingly, the cited sections of Sanchez and Choe, alone or in permissible combination, fail to teach the claimed acts of accessing being performed by a network device.

For at least these reasons, Applicant respectfully submits that independent Claim 1, as amended, is patentably distinguishable over the cited references. For similar reasons, independent Claims 19, 34, and 41 are also patentably distinguishable over the cited references. Applicant therefore respectfully submits that independent Claims 1, 19, 34, and 41, and all claims depending therefrom, are in condition for allowance. Applicant therefore respectfully

requests the Examiner's reconsideration and withdrawal of the rejection to these claims and an indication of the allowability of same.

Claims 3-5, 17, 18, 21-23, 32, 33, 36, 43-45, 54, and 55 stand rejected under 35 U.S.C. § 103(a) as purportedly being unpatentable over Sanchez in view of Choe and further in view of Templin, U.S. Patent Publication No. 2001/0040895 ("Templin"). Claims 8-12, 14, 15, 26, 27, 30, 31, 38, 48, 49, and 52 stand rejected under 35 U.S.C. § 103(a) as purportedly being unpatentable over Sanchez, in view of Choe, and further in view of Arunachalam et al., U.S. Patent No. 7,466,703 ("Arunachalam"). Claims 13, 28, 29, 50, and 51 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Sanchez in view of Choe in view of Arunachalam and further in view of Templin. Applicants respectfully traverse these rejections for at least the reasons set forth above with respect to independent claims 1, 19, 34, and 41.

**CONCLUSION**

Applicants submit that all claims are now in condition for allowance, and an early notice to that effect is earnestly solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the Examiner is requested to telephone the undersigned.

If any extensions of time under 37 C.F.R. § 1.136(a) are required in order for this submission to be considered timely, Applicant hereby petitions for such extensions. Applicant also hereby authorizes that any fees due for such extensions or any other fee associated with this submission, as specified in 37 C.F.R. § 1.16 or § 1.17, be charged to deposit account 502306.

Respectfully submitted,

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